

## **REMARKS/ARGUMENTS**

Claims 1-13 are now in the application. Claims 14-28 have been canceled without prejudice. Applicants reserve the right to file a continuation application with claims containing all or some of the subject matter in these canceled claims. Claims 1 and 2 have been amended.

### **Claim Objections**

The term "phase" in claim 2 was changed to --phrase--. Applicants appreciate the examiner's assistance in correcting this typographical error.

### **Drawings**

The drawings have been amended to correct informalities.

### **Claim Rejections – 35 U.S.C. § 102**

Claims 1-6, 8-12, 14, and 16-28 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Plessis et al., "A multi-classifier combination strategy for the recognition of Handwritten Cursive Words," Document Analysis and Recognition, 1993 (hereinafter the Plessis reference).

#### **Present Invention Differs From Plessis Reference:**

Each of the independent claims remaining in the application distinguish over the Plessis reference for at least the following reasons. Plessis does not generate character segmentation information in the holistic recognition engine. Further, Plessis does not use the character segmentation information from the holistic recognition engine to segment characters in the input string for processing by the analytic recognition engine. This combination of operations is a very significant difference as the weakness of analytic recognition is segmentation. Thus, the segmentation information from the holistic recognition can greatly enhance recognition by the analytic recognition engine. This in turn enhances the likelihood that a best answer is found in the answers from both engines.

Difference is Reflected In the Claims:

In Claim 1 the holistic recognition means generates a segmentation list containing segmentation information separating characters in the answers generated by the holistic recognition. Further, the analytic recognition means is responsive to this segmentation list for recognizing characters and generating its answers. For the reasons discussed above, claim 1 should be allowed.

Further claims 4-8 which depend from claim 1 should be allowed for the same reasons that claim 1 is allowable.

In method claim 2, the claim calls for an act of constructing a character segmented features list segmented into sets of characters in each answer from the holistic answer list. Further, the claim calls for an act of translating the input phrase image into character images segmented based upon the character segmented features list. Also the character images thus segmented are matched by the act of matching which generates the analytical answer list. For the reasons discussed above, claim 2 should be allowed.

Further, claim 9 that depends upon claim 2 should be allowed for the same reasons that claim 2 is allowable.

In method claim 3, an act of comparing compares the whole input string of strokes to strokes in reference words to generate a first answer list. An act of creating creates character segmentation hypothesis based on the character segmented strokes in the first answer list. An act of translating translates the segmentation hypothesis into character cutout images. Acts of matching and interpreting generate a second answer list from character variants of the input word for each segmentation hypothesis. Again holistic recognition provides segmentation information to an analytic recognition process to recognize characters in input words. For the reasons discussed above, claim 3 should be allowed.

Further, claims 10-13 which depend from claim 3 should be allowed for the same reasons that claim 3 is allowed.

**Claim Rejections – 35 U.S.C. § 103**

Claims 7, 13 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Plessis et al.

Claims 7 and 13 should be allowed because the Plessis reference does not disclose, as discussed above, at least some of the elements in the combination of elements in independent claims 1 and 3.

**Conclusion**

As all claims now in the application are in condition for allowance, Applicants request the application be allowed and pass to issuance as soon as possible.

It is believe that no further fees are due with this Response. However, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment with respect to this patent application to deposit account number 13-2725.

Respectfully submitted,

Dated: May 20, 2004



Homer L. Knearl  
Homer L. Knearl Reg. No. 21,197  
Merchant & Gould P.C.  
PO Box 2903  
Minneapolis, MN 55402-0903  
(303) 357-1670